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(19) (CA) **CANADIAN PATENT** (12)

(54) Hockey Stick Handle

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#### ABSTRACT OF THE DISCLOSURE

The disclosure herein describes a hockey stick handle for use in the making of a hockey stick which consists of an elongated body and two lapping members adhesively secured to a tapering portion at one end thereof; a layer of fiberglass material is disposed over two opposite faces of the body; the lapping members have a complementary shape to that of the tapering portion to form a hockey stick handle of rectangular shape and ready to be slit in the lapping area to receive a hockey stick blade.

FIELD OF THE INVENTION

The present invention relates to the manufacture of a handle which is subsequently used in the making of a hockey stick consisting of a handle and blade.


BACKGROUND OF THE INVENTION

The conventional wooden hockey stick is formed of a handle which is joined at one end thereof to a blade by means of various known assembly methods. One such hockey stick is described in the Canadian Patent no. 1,057,788, issued July 3, 1979 to André Michaud as using a pair of lapping members which form the joint between one end of the handle and the heel of the blade.

OBJECTS AND STATEMENT OF THE INVENTION

It is an object of the present invention to increase the strength of the joint between the handle and the blade of a hockey stick; this is achieved by providing an improved construction for a handle which is subsequently assembled to a blade by standard assembling and finishing methods.

It is also an object of the present invention to provide flexibility and strength to the handle. This is obtained by adding to two opposite faces of a portion of the handle, layers of fiberglass material.



The structural arrangement of these fiberglass layers on the handle is such as to prevent them from being contacted by a sawing blade which is subsequently used to slit one end of the handle so that it may be later assembled to a hockey blade.

The present invention therefore relates to a hockey stick handle for use in the making of a hockey stick, which comprises: an elongated body including a straight portion substantially rectangular in cross-section with two opposite faces substantially parallel to one another and a tapering portion at one end of the straight portion which is defined by a pair of faces contiguous with the two opposite faces of the straight portion and converging to a thin end; a layer of fiberglass material is disposed over the two faces of the straight portion and at least partially over the faces of the tapering portion; the handle also includes a pair of lapping members fixedly secured to the end portion of the body, each lapping member having an outer face flush with the body and an inner face including a tapering portion disposed in a complementary covering engagement with an associated converging face of the tapering portion

of the body.

In one form of the invention, a layer of veneer material may be disposed over the layer of fiber-glass material to smoothen the outer construction of the handle.

In an another form of the invention, a major portion of the handle is hollow to lighten the handle.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in detail and in a non-limitative way having reference to the accompanying drawings in which:

Fig. 1 is a perspective view of a hockey stick handle made in accordance with the present invention;

Fig. 1a is an enlarged view of one extremity of the handle;

Fig. 2 is a cross-sectional view taken along lines 2-2 of Fig. 1a;

Fig. 3 is a cross-sectional view taken along lines 3-3 of Fig. 1a;

Fig. 4 is a cross-sectional view taken along lines 4-4 of Fig. 1a;

Fig. 5 is a perspective view of the tapered portion of one embodiment of the handle, showing the lapping members in dotted lines;

Fig. 6 is an elevational view of one extremity

of the handle with a blade-receiving slot;

Fig. 7 is an elevational view showing one end of another embodiment of a handle made in accordance with the present invention; and

5 Fig. 8 is a longitudinal cross-sectional view of the embodiment illustrated in Fig. 7 with the blade-receiving slot.

#### DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to Fig. 1, there is shown a hockey  
10 stick handle 10 made in accordance with the present invention. The handle is rectangular in cross-section and is formed of an elongated body 12 and of two lapping members 14 and 16, disposed at one end thereof. Body 12 includes a straight portion, substantially rec-  
15 tangular in cross-section, with two opposite wider faces 18 and 20 and two opposite narrower faces 22 and 24. As shown in Fig. 1a, body 12 terminates, at one end thereof, with a tapering portion 26 which is defined by a pair of opposite faces which are contiguous with  
20 the two opposite wider faces 18, 20 of the straight portion and which converge to a thin end 27. Body 12 is preferably made of wood, preferably aspen. It may also be made of ash, poplar, spruce birch or the like or a laminated structure including one or more of these  
25 timber materials.

As shown in Fig. 2, a layer of fiberglass material 32, 34 extends over faces 18 and 20 of the



straight portion and at least partially over the  
converging faces of the tapering portion 26. Over the  
layers of fiberglass 32 and 34, layers of veneer  
material 38 and 40 may be used to provide a smooth  
5 finish at least in the straight portion of body 12.

Referring to Figures 3, 4 and 5, the pair of  
lapping members 14 and 16 have a complementary shape  
to that of the tapering portion 26 of body 12. These  
lapping members have outer faces 42 and 44 which are  
10 flush with the wider opposite faces of the straight  
portion which, in the embodiment illustrated, consists  
of the veneer covered faces 38 and 40.

The inner face of the lapping members 14 and  
16 of the embodiment illustrated in Figs. 1-6 include  
15 a tapering portion 46, 48 which is disposed in covering  
engagement with an associated converging face of the  
tapering portion 26. The inner faces also include rec-  
tangular straight portions 50 and 52 which are adhesive-  
ly secured to one another by means of an epoxy layer 54;  
20 although not detailed in the drawings, an epoxy layer  
also exists between the contacting faces of the lapping  
members 14 and 16 and of the tapering portion 26 of the  
body 12.

In the embodiment illustrated in Figs. 7 and 8,  
25 the tapering portion 26' of the body has its thin end  
27' at the extremity of the handle. The lapping

members 14' and 16' thus have their inner faces entirely tapered from end 27' to the outer face junctions 60 and 62 between the lapping members 14' and 16' and body 12'. In this instance, the fiberglass layers 32' and 34' terminate short of the end 27'.

The hockey stick handle made in accordance with the present invention is manufactured and sold as it appears in Figs. 1, 1a and 7. However, Figs. 6 and 8 show slits 70 and 72 which are subsequently made at the assembly plant where the blade is incorporated to the handle to form a hockey stick. During this assembly, it is essential that the sawing blade effecting this slit does not contact the fiberglass layers 32, 34, 32', 34'. Therefore, in the embodiment illustrated in Fig. 6, the slit is made only in the rectangular portions of the lapping members 14 and 16. In the embodiment illustrated in Fig. 8, where the tapering portion extends entirely to the end of the hockey stick handle, it is important that the fiberglass layers 32' and 34' terminate at such a distance from extremity 27' (and from one another) that will allow a sawing blade to enter the handle up to a distance 74 without touching the fiberglass material.

Another feature of the present invention is that the hockey stick handle may be lightened by providing a hollow portion 76 (see Fig.2) between the wider

faces of body 12, within the layers of fiberglass material 32 and 34. This hollow portion extends over a major portion of the straight portion of body 12 of the handle, preferably terminating short of the non-tapering  
5 extremity of the body and of tapering portion 26.

Although the invention has been described above in relation to specific forms, it will be evident to the person skilled in the art that it can be refined and modified in various ways. It is therefore wished  
10 to have it understood that the present invention should not be limited in interpretation except by the terms of the following claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A hockey stick handle for use in the making of a hockey stick, comprising:

a) an elongated body including:

i) a straight portion, substantially rectangular in cross-section, with two opposite faces substantially parallel to one another;

ii) a tapering portion at one end of said straight portion, said tapering portion being defined by a pair of opposite faces contiguous with said two opposite faces of said straight portion and converging to a thin end;

iii) a layer of fiberglass material extending over said faces of said straight portion and at least partially over said faces of said tapering portion.

b) a pair of lapping members fixedly secured to said end portion of said body, each said lapping member having an outer face flush with said body and an inner face including a tapering portion disposed in complementary covering engagement with an

associated converging face of said tapering portion of said body.

2. A hockey stick handle as defined in claim 1, wherein the inner faces of said lapping members include planar portions adhesively secured to one another.

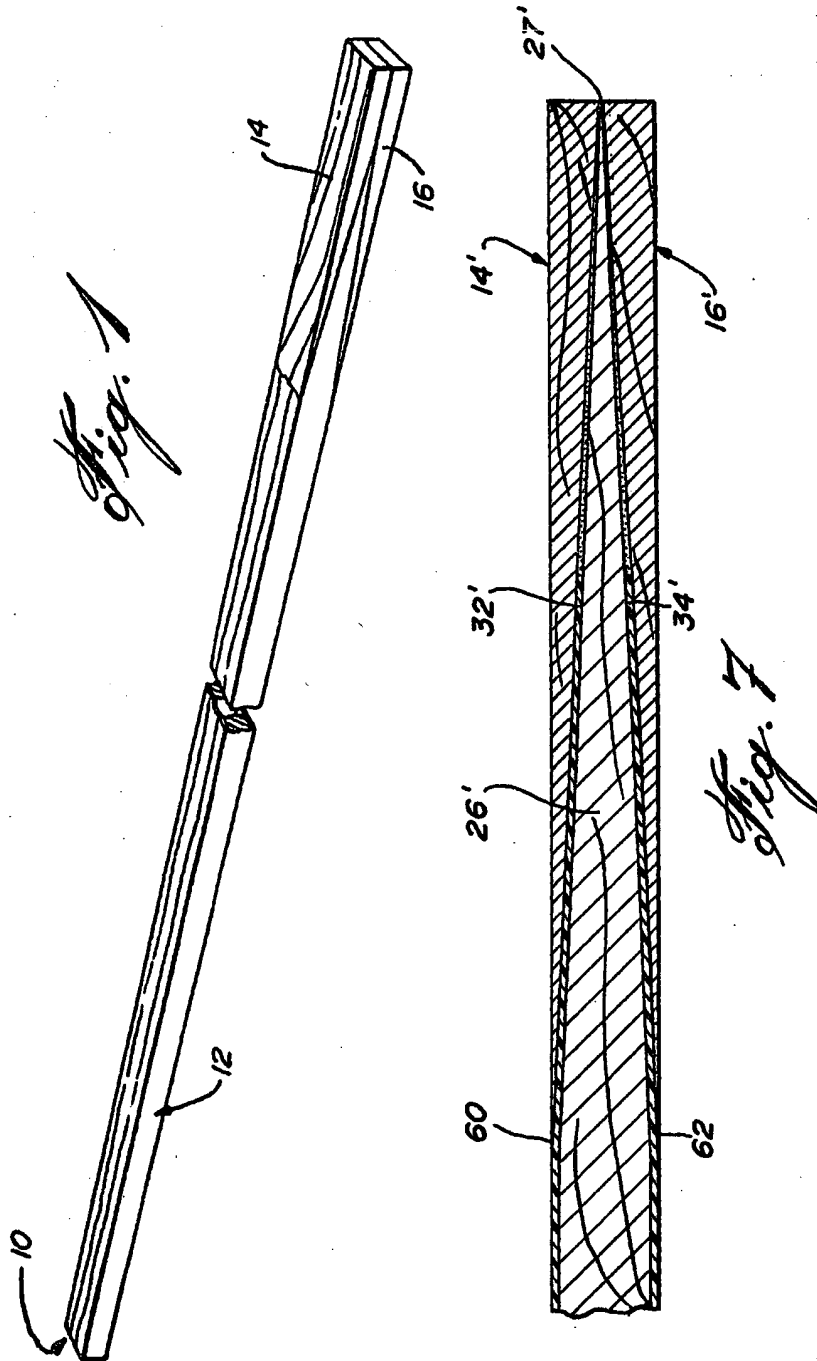
3. A hockey stick handle as defined in claim 1, wherein the tapering portion of the inner faces of said lapping members is tapered over the entire length thereof; said fiberglass layers terminating short of said thin end.

4. A hockey stick handle as defined in claim 1, further comprising a layer of veneer material disposed over each said layer of fiberglass material at least over the straight portion of said body.

5. A hockey stick handle as defined in claim 1, wherein said straight portion of said body includes a hollow inner portion extending between said layers of fiberglass material; said hollow portion extending over a major length of said tapering portion of said body.

6. A hockey stick handle as defined in claim 1, wherein the rectangular cross-section of said straight portion of said body includes two opposite wider faces and two opposite narrower faces; the layers of fiberglass material being disposed over said wider faces.





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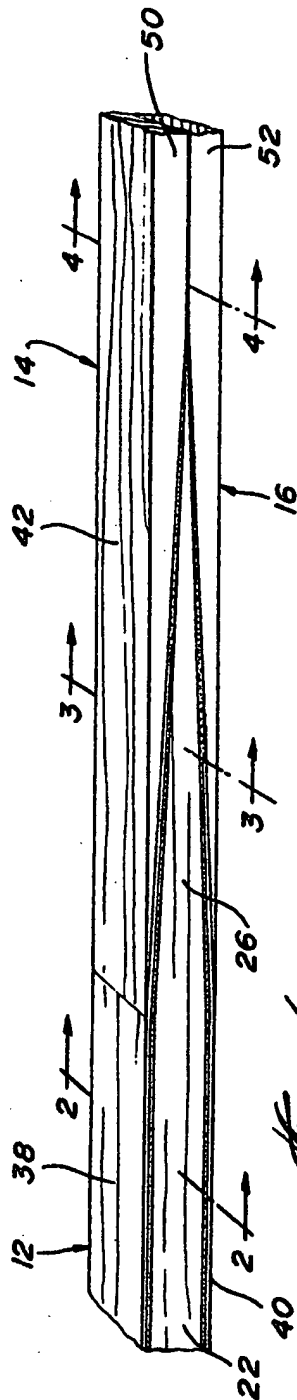


Fig. 1a

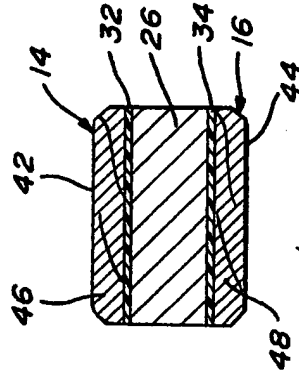


Fig. 3

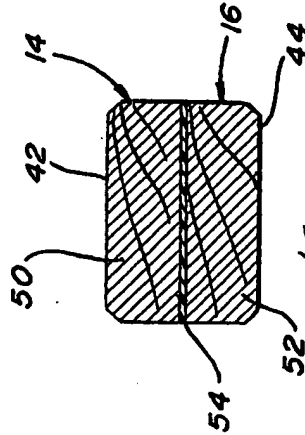


Fig. 4

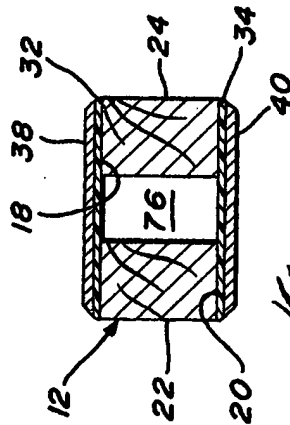
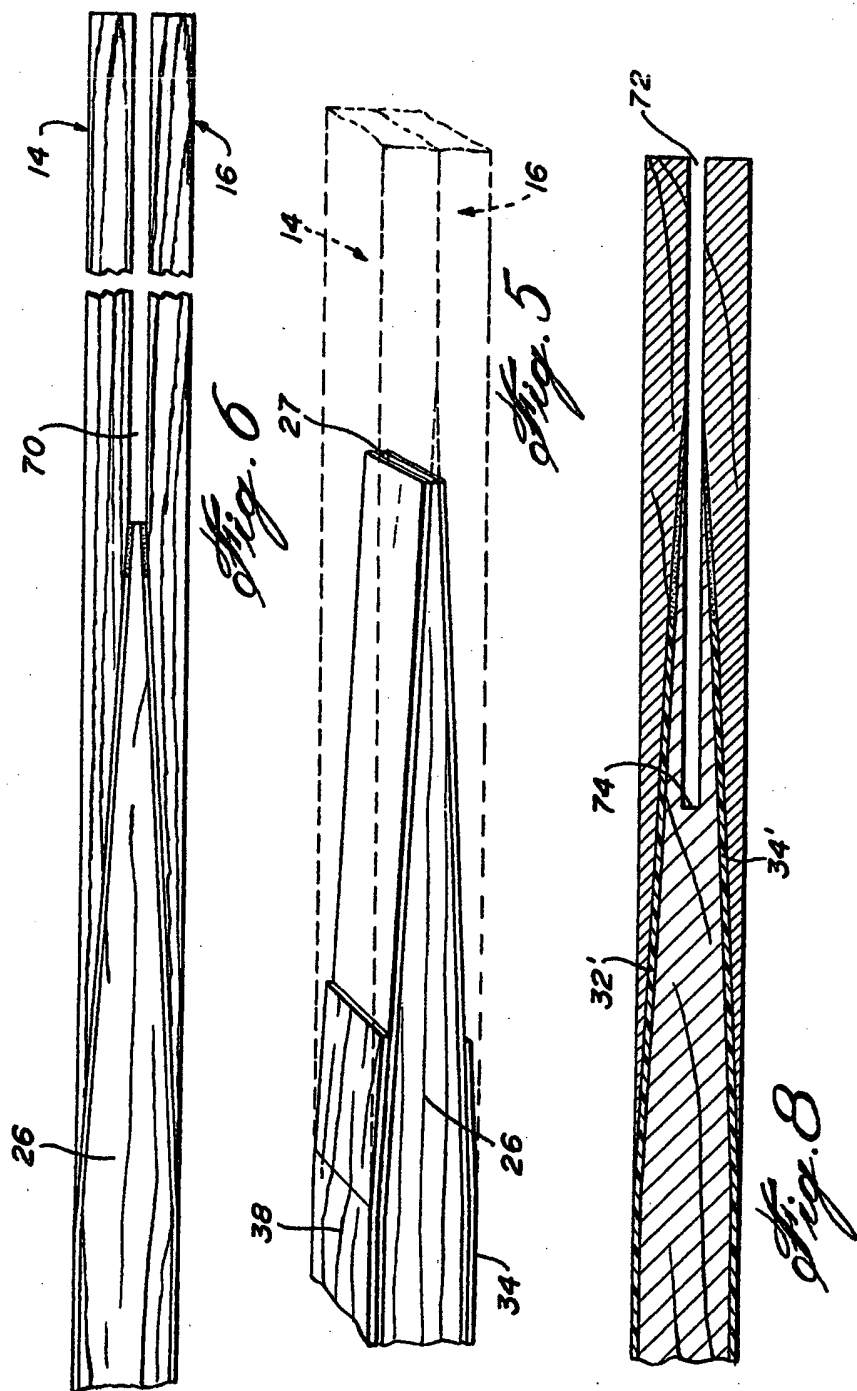


Fig. 2

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